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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|-------------------------------|------------------|
| 09/937,114 | 09/20/2001 | Andrew Bartlett | MCA-460 PC/US | 4663 |
| 25182 | 7590 | 09/25/2006 | | |
| MILLIPORE CORPORATION 290 CONCORD ROAD BILLERICA, MA 01821 | | | EXAMINER MENON, KRISHNAN S | |
| | | | ART UNIT | PAPER NUMBER |

1723

DATE MAILED: 09/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|-------------------|-----------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 09/937,114 | BARTLETT ET AL. | |
| | Examiner | Art Unit | |
| | Krishnan S. Menon | 1723 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 September 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,5-8 and 10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-8 and 10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 1,2,5-8, and 10 are pending after the amendment of 2/21/06.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 1 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. No support could be found for the limitation, "sealing devices ... formed through the filter" in the specification or claims as originally filed. This rejection was raised in two prior office actions (5/17/04 and 9/8/04). None of the several paragraphs applicant cited in support of this limitation appear to show sufficient disclosure to support this limitation. This rejection was inadvertently dropped in the office action of 2/17/05.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct

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from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1,2,4-8 and 10 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 3 and 4 of copending Application No. 10/805,032. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of '032 application recite the same limitation as in the instant claims.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

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only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1,2,5-7 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by, or in the alternative, under 35 USC 103(a) as being obvious over GB 2,302,042 A.

GB teaches a filtration device having filter layers and screen layers, filter layers and screen layers having openings for inlets and outlets as claimed, with the openings having thermoplastic seals integrally formed (page 7 lines 9-15), the seals extending at least 0.001, 0.002, or 0.005 from the surfaces of the screens, and from the surface of the filters, all as claimed: see abstract, 3rd paragraph of page 1, page 2 lines 5-35, page 3 lines 1-12, page 7 lines 9-15 and 20-33. Since the seal material is heat-sealed and penetrates several layers of the membranes and screens, the thickness of the seal layer extending from each screen layer would be greater than the thicknesses claimed. Such penetration would show that the seal inherently forms through the layers.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1,2,5-8 and 10 are rejected under 35 USC 103(a) as unpatentable over Rogemont et al (US 4,701,234) in view of GB 2 302 042 A

Rogemont teaches interposed sealed support of permeable membranes with a permeable mesh comprising plurality of openings in a screen having uniform thickness, one or more ports and integral gasket of thermoplastic elastomer with gasket around the ports and extending beyond the screen surfaces as claimed – see abstract, column 1 lines 15-52, column 3 lines 20-30, column 4 lines 28-33 and figures. The extension of the gasket above the mesh falls within the range claimed in claims 5-8. See column 4 lines 28-35. The reference teaches membrane stacks for microfiltration, ultrafiltration, gas separation, etc., see column 1 lines 5-12.

The teaching of the reference differs in the “thermoplastic elastomer” as the seal in claims 2 and 5-8. Claim 1 recites a filtration device comprising one or more filter layers, with the filter as having one or more openings around which a fluid tight seal is formed by an integral seal that is formed through the filter, with thickness greater than the filter, and made of an elastomer. Claim 10 recites a filtration module formed by stacks of layers of membrane and screen material with the seal around the ports or holes. GB teaches a thermoplastic elastomer (ethylene vinyl acetate) seal around the holes in place of other seal materials in page 7 lines 9-15 and 20-33. It would be obvious to one of ordinary skill in the art at the time of invention to use the teaching of GB in the teaching of Rogemont because GB teaches that the thermoplastic used requires low extractables (page 1 lines 22-34), and that the layers can be sealed together as one integral body (page 7 lines 20-33) leading to high quality devices (par linking pages 7 and 8).

Response to Arguments

Applicant's arguments filed 9/14/06 have been fully considered but they are not persuasive.

In response to the argument that the reference GB'042 teaches the EVA copolymer as placed between the layer, and not "through the layers" as claimed: the reference teaches that the diffusion layer (or the screen) is 'partially embedded in the copolymer, which means that the copolymer penetrates the screen when heat sealed. The reference also teaches that the copolymer forms a gasket through and around the holes, which means it goes through the layer(s) at the holes. More over, when the EVA elastomer is heat-sealed into a mesh screen, it would inherently flow through the screen. See pages 2,6 and 7 of the reference, particularly 2nd paragraph on page 7. If the copolymer does not form through and around the hole of the diffusion layer, it would not seal the flow path through the diffusion layer at the hole. Thus the formation of the seal through and around the hole in the screen and the filter layers would be inherent, if not clearly described in the reference.

Applicant's disclosure in the specification in support of the claim limitation of the sealing device forming through the filter layer may at best be only through the hole in the layer, not through the material of the layer.

With respect to the thickness extending from at least one side, the copolymer forms a gasket through the hole and around the hole, it is also described as places between the layers, which means that it would extend at least on one side of the layer. Applicant's argument, that because the reference states 'at best, it is partially

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embedded into the diffusion layer ...' it does not have a thickness extending, is not very convincing.

Please note that the 'preferably partially embedded' could mean that in specific instances where the complete penetration of the diffusion layer is undesirable, as in the diffusion layer being open to a hole from one side, a partial embedment would be preferable. The "partially embedded" language of the reference would lead to both fully embedded and not-embedded situations equally as the less-preferred possibilities.

With respect to the arguments about the 103 rejection, the argument that the GB reference does not teach the mechanical structure is not very convincing. More over, one of ordinary skill in the art would use the teaching of GB in the teaching of Rogemount just for the teaching of using low extractable materials. Regarding the question of EVA being a thermoplastic elastomer, a search of the internet provided the following, which clearly describes EVA as a thermoplastic elastomer:

Ethylene-vinyl acetate

From Wikipedia, the free encyclopedia

(Redirected from Ethylene-Vinyl Acetate)

Jump to: navigation, search

Ethylene-vinyl acetate (also known as **EVA** or sometimes simply as "acetate") is the copolymer of ethylene and vinyl acetate. It is a polymer that approaches elastomeric materials in softness and flexibility, yet can be processed like other thermoplastics. The material has good clarity and gloss, barrier properties, low-temperature toughness, stress-crack resistance, hot-melt adhesive and heat sealing properties and resistance to UV radiation. EVA has little or no odor and is competitive with rubber and vinyl products in many electrical applications.

EVA foam is used as padding in equipment for various sports such as hockey, boxing, and mixed martial arts.

EVA is also used in Biomedical Engineering applications as a drug delivery device. The polymer is dissolved in an organic solvent (e.g., methylene chloride). Powdered drug and filler (typically an inert sugar) are added to the liquid solution and rapidly vortexed to obtain a homogeneous mixture. The drug-filler-polymer mixture is then cast into a mold at -80 degrees and freeze dried until solid. These devices are used in drug delivery research to slowly release a compound over time. While the polymer is not biodegradable within the body, it is quite inert and causes little or no reaction following implantation.

EVA is also the same material found at the bottom of many tennis shoes.

[[edit](#)]

External links

- [Link page to external chemical sources](#).



This article about polymer science is a stub. You can help Wikipedia by expanding it.

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Categories: [Copolymers](#) | [Plastics](#) | [Elastomers](#) | [Polymer stubs](#)

Conclusion

This action is made non-final because of the reinstatement of the 112, first paragraph rejection of claim 1 and the new double patenting rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Krishnan S. Menon whose telephone number is 571-272-1143. The examiner can normally be reached on 8:00-4:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda L. Walker can be reached on 571-272-1151. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Krishnan S Menon
Examiner
Art Unit 1723

9/20/08